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## **ABSTRACT**

The present invention is for automatic reconfiguration of industrial networked devices. More particularly, the system described herein facilitates use of TCP/IP networks, such as Ethernet, as an alternative for industrial fieldbus or device buses by removing the need to perform significant reconfiguration of devices such as I/O modules, sensors, or transducers under field replacement situations. The present invention uses a monitor agent to track the IP and MAC addresses of networked devices as well as port information. If a device fails, maintenance personnel make an in-field replacement of the failed device and the monitor agent automatically reassigns the IP address to the replacement device.